

THE WORK OF A NEUROLOGICAL DISPENSARY CLINIC.*

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During the year 1902 there were 1,780 new patients suffering from some well-defined form of nervous disease who presented themselves for treatment at the Vanderbilt Clinic. Of these 953 were females and 827 were males. This number does not, however, represent all of the new cases applying to the clinic for treatment. This number was 2,044, 1,068 being women and 976 men. At least 134 of these did not present symptoms referable to the nervous system, and in 130 patients no definite diagnosis could be made. The total number of visits made by these patients was 10,121, thus making an average of about five visits per patient. Inasmuch as many of the patients come once only it is probable that the average number of visits is between seven and eight. A number of patients came once a week throughout the year. In this connection it is of interest to note that a few patients suffering from slowly progressive affections have been coming to the clinic almost monthly ever since the clinic was opened in 1889.

Contrasting these figures with those of the first year of the clinic's opening, it is found that the number of patients who have come for treatment has been doubled. Thus in 1888-1889 there were 944 patients or, for the first twenty-three months of the clinic's opening, there were 1,888 cases, less by 200 than the number for the twelve months of 1902 alone.

Mental Diseases.—In attempting to present an analysis of this material we have deemed it of interest to consider at first the purely mental diseases that have come for diagnosis and treatment. The commonest forms of mental affection presenting themselves have naturally been in children. In these deficient development is represented by idiocy in six cases, imbecility in 54, making a total of 60 cases or an incidence of about three per cent.

*Report of Clinic of Dr. M. Allen Starr, 1902.

It may also be of interest to note here that the Board of Education of this city has already taken steps to establish supplementary schools for backward children (called secondary schools on the continent of Europe). A few schools for this class are in successful operation, being maintained at other hours in the same school building as the regular schools. Obviously some systematic examination should be made in every child dismissed from the regular school system by school teachers or medical inspectors because of its mental deficiency. Such examination should be made by properly qualified physicians appointed by the Board of Education, or, as Dr. Starr suggests, the city might be divided into districts and the schools refer their cases to the nearest neurological clinic. As to whatever arrangements are employed all agree upon the necessity of supplemental schools, and the importance of systems of medico-pedagogical training for the defective.

The insanities are not well represented in dispensary work. In men, general paresis was the commonest affection, 23 (one per cent) presented unquestioned evidence of this affection, and as would be expected, always in the early stages. There were no women with paresis, which seems rather peculiar, inasmuch as syphilis, the most important etiological factor of paresis, is almost equally common in women, particularly in the lower strata of society. Probably the less exacting symptomatology for general paresis in the past few years accounts for the increased number of cases for this year's statistics, and for the apparent increase of the disease in general during the past decade. At present the signs of cerebral syphilis, plus positive evidence of mental alienation, are considered by many as sufficient data for an early diagnosis of general paresis.

Taking into account the essentially systematized and persecutory nature of the fixed delusions in paranoia, and the personal well-being of such patients, it is surprising that as many as seven men and one woman presented themselves at a neurological clinic. In most instances the patients come to the clinic for the secondary development of distressing hallucinations of hearing. The occurrence of melancholia in six men and in 24 women should be considered in the light of the older classification of the disease and not in the restricted sense of Kraepelin as a type of insanity of

the involution period. In other words it includes manic-depression as well as true melancholia.

Senile dementia was diagnosticated in three cases. There was one patient recorded suffering from mild puerperal mania.

Cerebral gumma, and cerebral syphilis with mental symptoms, were diagnosticated in six instances. Therefore, the total number of patients with mental trouble was 131, or seven per cent. This is not a great number in a large neurological clinic when one recalls that patients suffering from mental disorders prefer to visit more or less voluntarily a clinic of this type, which, of course, does not possess detention wards or even hospital wards of any sort, a feature which should not be lost sight of in establishing out-clinics with psychopathic hospitals in close connection with large neurological dispensaries.

Nervous Diseases (Functional).—Dividing the neurological cases into those usually classed as functional and those organic, there were 873 (49 per cent) of the former, and 776 (44 per cent) of the latter, distributed as the following brief record indicates.

Neurasthenia is par excellence the disease of dispensary patients. A more complete analysis of these cases is contemplated in a further communication. Here it may be said that there were 416 (23 per cent) patients who presented themselves for treatment, in whom this affection was diagnosticated, 250 in men and 166 in women. Apart from the marked sexual element in 62 male cases and 38 menopause neuroses, the cases of neurasthenia presented no particularly interesting features. The foreign population contributed over eight-tenths of the neurasthenics. Among men the Russian Jews preponderated.

Hysteria is given as the diagnosis in 80 cases. There was a history of major hysteria in but three cases. The remainder represented badly trained individuals of unstable nervous organization.

The *convulsive disorders* were represented by 135 (19.5 per cent) cases of chorea, of which 128 were of the usual type of this disease. There were five cases of chronic chorea and two patients with hemichorea, i.e., cases of chorea of the latter class which remained persistently unilateral.

Epilepsy, next to neurasthenia, contributed the largest incidence with 180 cases (ten per cent). An analysis of these cases is contemplated elsewhere.

Convulsive tics were not common, there being only 24 cases, about one per cent, of which 15 were of the ordinary type of spasmodic tic. Seven were obviously of the early type, and six were of tic douloureux. Women preponderated in the ratio of two to one.

There were 15 stammerers. The proportion of stammering in the general population would from these figures seem to be very small, but in view of the fact that we have no definite means of determining the general proportion of stammerers, some figures as recently published by M. Chervin of Paris in a monograph may be of interest here. As stammering is a cause of exemption from military service, it is possible to determine its frequency in different continental nations. It appears that of 1,000 conscripts examined the number rejected is as follows:

	Per 1,000
France	7.50
Switzerland	3.23
England	2.87
Austria-Hungary	2.20
Belgium	2.10
Italy	0.86
Russia	0.19

Comparing these numbers with those that represent the frequency of nervous affections, he finds that in France the nervous affections are exactly twice as numerous as the cases of stammering; in Belgium they are four times more numerous, in Italy seven times, in Switzerland eight times, and in Russia thirteen times. No statistics of stammerers in the United States are given.

There were three patients with motor speech defects, and three patients with simple idiopathic tremor.

Paralysis agitans showed 17 cases, eight men and nine women. They did not present any features apart from the usual types.

The etiological statistics of the disease throw no new light on its pathogenesis.

Organic Lesions (Peripheral Nerves).—The peripheral nerve lesions of one type or another were numerous. They represented 379 cases (21 per cent), distributed equally between neuralgias 145 cases, neuritis 117 cases and peripheral palsies 117. Of this large number of peripheral nerve cases men were affected in 244 and women in 135 cases, showing the greater incidence of men to this type of lesion.

Of the neuralgias, sciatica was the most common, 48 cases; supraorbital in 16 (9 male and 7 female); intercostal 14 (3 male, 11 female); facial 25 (15 male, 10 female); generalized neuralgia in 18 (13 male, 5 female); brachial in one, coccygeal in one, ulnar one.

Neuritis was general in 12, traumatic in 18, lead in 11, alcohol in 7, occupation in 8, arthritic in 6, diphtheria in 3, typhoid in 1, circumflex 1, ulnar 1.

Peripheral palsies were represented by 117 cases. Facial palsies were most common in 41 (17 male, 24 female); musculo-spiral in 35 (29-6). Erb's palsy was represented by 5 cases, the ulnar nerve in 5, circumflex in 1, lead palsy 5, larynx 1.

Affections of the spino-peripheral neurone were present in but 46 cases. Of these anterior poliomyelitis was diagnosed in 24 cases. With reference to the incidence of these cases, 16 cases showed an initial history of fever, headache and vomiting. There was a history of initial convulsions in one case, and no recorded histories in seven. On the question of causation the history is negative in 16 cases, and given as due to a fall, measles, infections, dentition and pneumonia in 1 case each. The months of invasion are of interest. There was 1 case in January, none in February, 1 in March, none in April or May, 1 in June, 6 in July, 8 in August, 2 in September, none in October or November, 1 in December and no date given in 4.

Chronic anterior poliomyelitis was present in six cases, presenting the picture of progressive muscular atrophy. These were all in men.

Ophthalmoplegia was present in 11 cases. These patients were all men.

Tabes dorsalis was present in 32 patients. Only two of these were women.

Of these 32, record of 25 was kept—all males. The following occupations were represented: one each, driver, carpenter, farmer, soldier, bookkeeper, tailor, stone-cutter, fireman, janitor, butcher, lithographer, sleigh-maker, musician, cigar maker, butler; 2 bar-keepers, 3 salesmen, 2 cooks, 2 laborers. The earliest age at onset was 28, the latest 49, although one patient is put down as 14 years of age. It is doubtful if this early case is one of *tabes*. The average age of this series of 25 is about 35 years.

Bearing on the question of etiology, it was found that 14 had had syphilis, two had led extremely dissipated lives and nine presented no evidences nor history of syphilis, nor other etiological factor. In ten of the 14 presenting syphilis the initial lesion had been acquired 20, 8, 10, 28, 26, 18, 13, 30, 15, and 19 years previously, respectively. No special hereditary factors were present in any. In one there was senile dementia, in another grand mal epilepsy, in another tuberculosis, in the parents.

A few interesting facts concerning the earliest symptoms may be recorded. There were, as earliest symptoms, neuralgic pains in 11, perforating ulcer in 1, gastric crises in four, general weakness in the legs in 2, blindness in 4, ataxia in 3, and myosis in 1. The knee-jerks were absolutely lost in 24 and diminished in 1. The Argyll-Robertson pupil was present in 21 instances. There was normal light reaction in 3; myosis and optic atrophy in 1. Other detailed analyses are left for a special paper.

Friedreich's ataxia was found in 3 patients, 2 men and 1 woman.

Lateral sclerosis was present in 6 men and one woman.

Amyotrophic lateral sclerosis was present in 3 cases.

Multiple sclerosis was found in 6 men and in 4 women.

Myelitis was present in only two cases, certainly bearing out the recent contentions of Starr, Gowers and Risien Russell, that myelitis is really a rare affection.

Ataxia paraplegia was present in 5 men, and spastic paraplegia in 2 men.

Tumors of the spinal cord were present in two patients, one man and one woman.

Brain Affections.—Organic diseases of the brain were observed in 85 cases. Eighteen of these were in children presenting the symptoms of infantile cerebral palsies. Causation is here represented as whooping-cough in one, trauma in two, prolonged labor in four; the rest were negative. One patient was diplegic. Monoplegia was present in two men and two women. Hemiplegia was present in 58 patients, an incidence of 2.7 per cent. Forty-three in men and 15 in women. Two patients had aphasia. Tumor of the brain was present in four cases, three men and one woman; two cases of cerebral gumma were diagnosed.

Syphilis of the brain was diagnosed in 12 cases (3 men, 9 women).

Vascular Lesions.—Vasomotor affections were diagnosed in 16 patients, angioneurotic in 4, flushings in 3 and erythromelalgic symptoms in 9 patients, 6 men and 3 women.

Exophthalmic goiter was present in 8 women.

Miscellany.—Alcoholism in 43 males, 1 female; muscular dystrophy, 3 males, 1 female; atheroma 3; arteriosclerosis 12; concussion of brain 3; fracture of skull 1; headache, 10 males, 75 females; hemicrania 2; herpes 1; hemianopsia 1; insomnia 2 males, 11 females; pachymeningitis 4 males, 1 female; optic atrophy 2; paresthesiæ 5 males, 11 females; senility 1; incontinent bladder 1; local atrophy 1.